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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,864	09/28/2001	Yoshinari Nanao	KOKUSAI 081	2373

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EXAMINER	
ENG, GEORGE	

ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,864	NANAO ET AL.	
	Examiner	Art Unit	
	George Eng	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment filed 8/20/2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 3-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hedberg et al. (WO 99/53625A1 hereinafter Hedberg) in view of Berman et al. (US PAT. 6,091,934 hereinafter Berman).

Regarding claim 1, Hedberg discloses an amplitude limitation in a CDMA system having a base station amplifier device (200, figure 2) for use in amplifying at least one channel to be transmitted from a base station comprising amplitude limiting means (120a and 120b, figure 2) for amplitude-limiting a based band signal in every said channel, a high frequency modulating means (125a and 125b) for performing a high-frequency modulation on an output from the amplitude-limiting means every said channel, adding means (205, figure 2) for adding outputs from all of the high frequency modulating means, amplifying means (260, figure 2) amplifying an output from the adding means, and amplitude controlling means (250, figure 2) for controlling the amplitude limiting means based on characteristics of the amplifying means (page 7 line 21 and page 9 line 17), wherein the amplitude controlling means controlling the amplitude limiting means only when the number of the channel exceeds a preset number (page 9 lines 1-17 and page 10 lines 6-20). Helberg differs from the claimed invention in not specifically teaching said amplitude controlling means instructing said amplitude limiting means not to perform an amplitude limitation when the number of said at least one channel is small. However, Berman teaches a adjustable amplification system for allocating power to channels by monitoring traffic on a plurality of channels comprising control means for transmitting a command to instruct amplification not to perform during low traffic in order to reduce power consumption, thereby maintaining amplifier efficiency (col. 3 line 53 through col. 4 line 42). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Helberg in having said amplitude controlling means instructing said amplitude limiting means not to perform an amplitude limitation when the number of said at least one channel is small, as

per teaching of Berman, in order to reduce power consumption, thereby maintaining amplifier efficiency.

Regarding claim 3, Berman discloses the base station amplifier device (42, figure 5) comprising detecting means (24, figure 5) arrange on at least one of an input side and output side of the amplifying means, wherein the amplitude control means controls the amplitude limiting means based on characteristics of the amplifying means and an output from said detecting means when output from the detecting means exceeds a threshold value based on characteristics of the amplifying means (col. 4 line 43 through col. 5 line 14).

Regarding claim 4, Berman discloses the number of the at least one channel is small at the image of a low traffic through the base station (col. 4 lines 8-22).

Regarding claim 5, the limitations of the claim are rejected as the same reasons as set forth in claim 1.

Regarding claim 6, Hedberg discloses an amplitude limitation in a CDMA system having a base station amplifier device (200, figure 2) for use in amplifying at least one channel to be transmitted from a base station comprising at least one amplitude limiting circuit (120a and 120b, figure 2) for amplitude-limiting a based band signal in every said channel, an amplifier (260, figure 2) that amplifies an output from each of said at least one amplitude limiting circuit (page 7 line 21 and page 9 line 17), an amplitude controlling circuit controls the amplitude limiting circuit only when the number of the channel exceeds a preset number (page 9 lines 1-17 and page 10 lines 6-20). Helberg differs from the claimed invention in not specifically teaching said amplitude controlling circuit instructing said amplitude limiting circuit not to perform an amplitude limitation during a time of a low traffic through the base station. However, Berman

teaches a adjustable amplification system for allocating power to channels by monitoring traffic on a plurality of channels comprising control means for transmitting a command to instruct amplification not to perform during low traffic in order to reduce power consumption, thereby maintaining amplifier efficiency (col. 3 line 53 through col. 4 line 42). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Helberg in having said amplitude controlling circuit instructing said amplitude limiting circuit not to perform an amplitude limitation during a time of a low traffic through the base station, as per teaching of Berman, in order to reduce power consumption, thereby maintaining amplifier efficiency.

Regarding claim 7, Helberg discloses a high frequency modulator (125a and 125b) for performing a high-frequency modulation on an output from each of said at least one the amplitude limiting circuit (page 6 line 31 through page 7 line 11).

Regarding claim 8, Helberg discloses adder (205, figure 2) for adding outputs from each of said at least one high frequency modulator (page 7 lines 11-13).

Regarding claim 9, Helberg discloses at least one modulator that orthogonally-modulates the base band signal of each of said at least one channel and outputs a modulated base band signal for each of said at least one channel to each of said at least one amplitude limiting circuit (page 7 lines 1-3).

Regarding claim 10, Helberg discloses at least one channel comprising a plurality of channels (figure 1 and page 6 lines 12-16).

Regarding claim 11, the limitations of the claim are rejected as the same reasons as set forth in claim 3.

Regarding claim 12, Helberg teaches said outputs from each of said at least one high-frequency modulator comprising high-frequency signals (abstract).

Regarding claims 13-14, Helberg discloses each of said at least one amplitude limiting circuit being arranged on at least one of an output side of each of said at least one modulator and an input side of each of said at least one modulator (figure 1 and page 7 line 21 through page 8 line 12).

Regarding claim 15, the limitations of the claim are rejected as the same reasons as set forth in claim 4.

Regarding claim 16, the limitations of the claim are rejected as the same reasons as set forth in claim 1.

Regarding claim 17, the limitations of the claim are rejected as the same reasons as set forth in claim 3.

Regarding claim 18, the limitations of the claim are rejected as the same reasons as set forth in claim 4.

Response to Arguments

4. Applicant's arguments with respect to claims 1 and 3-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Eng whose telephone number is 703-308-9555. The examiner can normally be reached on Tue-Fri 7:30 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A. Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George Eng
Primary Examiner
Art Unit 2643